

Listing of the Claims:

This listing of the claims will replace all prior versions, and listings, of the claims in the application:

- 1 1. (Previously Presented) A method of forming a plurality of two-way beams using a
2 transmit and receive system, the method comprising:
3 controlling a transmit antenna array of the transmit and receive system to provide
4 a plurality of transmit beams;
5 simultaneously forming a first plurality of receive beams via a beamformer
6 network;
7 controlling a switched beam combining circuit of a receive antenna array of the
8 transmit and receive system to form a second plurality of receive beams wherein the
9 controlling comprises combining selected ones of the formed beams via a switch
10 network; and
11 combining predetermined ones of the plurality of transmit beams and
12 predetermined ones of the second plurality of receive beams to form the plurality of two-
13 way beams.
- 1 2. (Previously Presented) The method of claim 1, wherein controlling the transmit
2 antenna array includes controlling a beam switching system coupled to the transmit
3 antenna array to provide the plurality of transmit beams.
- 1 3. (Previously Presented) The method of claim 1, wherein controlling the switched
2 beam combining circuit of the receive antenna array includes controlling a plurality of
3 single-pole, multi-throw switches to provide the second plurality of receive beams.
- 1 4. (Previously Presented) The method of claim 1, wherein combining includes
2 combining a first transmit beam of the plurality of transmit beams with at least one of the

3 second plurality of receive beams to provide a first one of the plurality of two-way
4 beams.

1 5. (Previously Presented) The method of claim 4, wherein combining further includes
2 combining the first transmit beam of the plurality of transmit beams with a second
3 receive beam of the plurality of receive beams to provide a second one of the plurality of
4 two-way beams.

1 6. (Previously Presented) The method of claim 5, wherein combining further includes
2 combining a second transmit beam of the plurality of transmit beams with the second
3 receive beam of the plurality of receive beams to provide a third two-way beam of the
4 plurality of two-way beams.

1 7. (Previously Presented) The method of claim 6, wherein combining further includes
2 combining the second transmit beam of the plurality of transmit beams with a third
3 receive beam of the plurality of receive beams to provide a fourth two-way beam of the
4 plurality of two-way beams.

1 8. (Previously Presented) The method of claim 7, wherein combining further includes
2 combining the second transmit beam of the plurality of transmit beams with a fourth
3 receive beam of the plurality of receive beams to provide a fifth two-way beam of the
4 plurality of two-way beams.

1 9. (Previously Presented) The method of claim 8, wherein combining further includes
2 combining a third transmit beam of the plurality of transmit beams with the fourth
3 receive beam of the plurality of receive beams to provide a sixth two-way beam of the
4 plurality of two-way beams.

1 10. (Previously Presented) The method of claim 9, wherein combining further includes

2 combining the third transmit beam of the plurality of transmit beams with a fifth receive
3 beam of the plurality of receive beams to provide a seventh two-way beam of the
4 plurality of two-way beams.

1 11. (Previously Presented) The method of claim 10, wherein combining further
2 includes combining the third transmit beam of the plurality of transmit beams with a sixth
3 receive beam of the plurality of receive beams to provide an eighth two-way beam of the
4 plurality of two-way beams.

1 12. (Previously Presented) The method of claim 11, wherein combining further
2 includes combining a fourth transmit beam of the plurality of transmit beams with the
3 sixth receive beam of the plurality of receive beams to provide a ninth two-way beam of
4 the plurality of two-way beams.

1 13. (Previously Presented) The method of claim 12, wherein combining further
2 includes combining the fourth transmit beam of the plurality of transmit beams with a
3 seventh receive beam of the plurality of receive beams to provide a tenth two-way beam
4 of the plurality of two-way beams.

1 14. (Previously Presented) The method of claim 4, wherein combining further includes
2 combining a second transmit beam of the plurality of transmit beams with the first
3 receive beam of the plurality of receive beams to provide a second two-way beam of
4 the plurality of two-way beams.

1 15. (Previously Presented) The method of claim 14, wherein combining further
2 includes combining the second transmit beam of the plurality of transmit beams with a
3 second receive beam of the plurality of receive beams to provide a third two-way
4 beam of the plurality of two-way beams.

1 16. (Previously Presented) The method of claim 15, wherein combining further
2 includes combining a third transmit beam of the plurality of transmit beams with the
3 second receive beam of the plurality of receive beams to provide a fourth two-way
4 beam of the plurality of two-way beams.

1 17. (Previously Presented) The method of claim 16, wherein combining further
2 includes combining the third transmit beam of the plurality of transmit beams with a
3 third receive beam of the plurality of receive beams to provide a fifth two-way beam of
4 the plurality of two-way beams.

1 18. (Previously Presented) The method of claim 17, wherein combining further
2 includes combining a fourth transmit beam of the plurality of transmit beams with the
3 third receive beam of the plurality of receive beams to provide a sixth two-way beam
4 of the plurality of two-way beams.

1 19. (Previously Presented) The method of claim 18, wherein combining further
2 includes combining the fourth transmit beam of the plurality of transmit beams with a
3 fourth receive beam of the plurality of receive beams to provide a seventh two-way
4 beam of the plurality of two-way beams.

20. (Cancelled).